

GENERAL NOTES

1. ALL LAMPS SHALL BE HIGH PRESSURE SODIUM UNLESS NOTED OTHERWISE.
2. OPERATING VOLTAGE SHALL BE 480 VOLTS.
3. ALL BALLASTS SHALL BE REGULATOR TYPE.
4. REFRACTORS SHALL BE PRESSED PRISMATIC BOROSILICATE GLASS.
5. RIGID CONDUIT, INSTALLED ON STRUCTURES SHALL BE SUPPORTED AT LEAST EVERY TEN FEET AND WITHIN THREE FEET OF JUNCTION BOXES, LUMINAIRES, ETC.
6. CONDUIT EXPANSION JOINTS OR PROPER LENGTHS OF WATERPROOF FLEXIBLE CONDUIT SHALL BE PROVIDED AT EACH BRIDGE EXPANSION JOINT AND WHEN GOING FROM BRIDGE SUPERSTRUCTURE TO SUBSTRUCTURE.
7. CONDUIT EXPANSION JOINTS SHALL BE PROVIDED IN WALLS AT EACH LOCATION WHERE CONDUIT PASSES THROUGH WALL EXPANSION JOINTS.
8. CONDUIT ACCESSORIES SUCH AS EXPANSION JOINTS, PULL BOXES, CONDULETS, ELBOWS, FLEXIBLE CONDUITS, ETC., SHALL BE INCLUDED IN THE PRICE BID FOR CONDUIT.
9. THE CONTRACTOR SHALL INSTALL A NYLON PULL CORD OR GALVANIZED PULL WIRE IN EACH EMPTY CONDUIT. THE COST OF THIS ITEM WILL NOT BE PAID FOR SEPARATELY AND SHALL BE INCLUDED IN THE COST OF THE CONDUIT.
10. EACH SERVICE POINT SHALL BE EQUIPPED WITH A 650 VOLT – 2 POLE LIGHTNING ARRESTER.
11. THE CONTRACTOR SHALL PROVIDE THE SERVICE POLE, UNLESS OTHERWISE NOTED, SERVICE RISER, WEATHERHEAD, WEATHERPROOF ENCLOSURE, CIRCUIT BREAKER(S), LIGHTNING ARRESTER, AND THE NECESSARY WIRING FOR CONNECTION TO THE POWER SOURCE.
12. CONDUIT ON BRIDGES, WALLS, ETC., SHALL BE LOCATED WHERE IT IS NOT VISIBLE TO THE TRAVELING PUBLIC.
13. THE ON/OFF CONTROLS FOR EACH LIGHTING CIRCUIT SHALL BE PROVIDED THROUGH PHOTOCELL CONTROLLED LIGHTING CONTACTORS LOCATED AT THE PANELS, UNLESS OTHERWISE INDICATED.
14. ALL FUSES AND FUSEHOLDERS SHALL BE INLINE TYPE AND WATERPROOF. ALL FUSEHOLDERS IN LIGHTING STANDARDS WITH AN ALUMINUM TRANSFORMER BASE SHALL BE BREAKAWAY.
15. CONCRETE ENCASED CONDUIT SHALL BE INSTALLED UNDER ALL ROADWAYS.
16. RIGID STEEL CONDUIT SHALL BE USED ABOVE GRADE, WHERE EXPOSED TO DAMAGE, AND WHERE NOTED.
17. ELECTRICAL EQUIPMENT SUCH AS THE PHOTOELECTRIC CONTROL SYSTEM, CONTACTORS, PANELBOARD, ENCLOSURES, GROUND RODS, CIRCUIT BREAKERS, AND CONNECTIONS TO LIGHTNING ARRESTERS ARE CONSIDERED TO BE INCIDENTAL TO THE ELECTRICAL SYSTEMS AND ARE TO BE INCLUDED IN THE COST OF THE SERVICE PICK-UP POINTS.
18. INSTALLATION SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL SAFETY CODE.
19. THE CONTRACTOR SHALL SUBMIT PHOTOMETRIC DATA AND DESIGN CALCULATIONS, FOR THE LUMINAIRES, TO VERIFY THE LIGHTING DESIGN CRITERIA.

LIGHTING DESIGN CRITERIA:



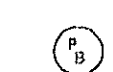




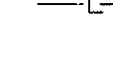
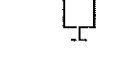
MAINTENANCE FACTOR = 0.7

AVERAGE MAINTAINED ILLUMINATION FOR ROADWAY = 1.4 F.C.

UNIFORMITY RATIO (AVG./MIN.) = 3:1 MAXIMUM

WIND SPEED = 90 MPH
20. THE CONTRACTOR SHALL FURNISH A ONE YEAR WRITTEN WARRANTY FOR PARTS AND DEFECTIVE WORKMANSHIP ON THE LUMINAIRES, POLES, LIGHTING CONTROL PANEL AND ALL THE OTHER ELECTRICAL EQUIPMENT.
21. CABLE TO BE MULTIPLE CONDUCTOR 2-#6 & 1-#6 COPPER TYPE RHW/USE UNLESS OTHERWISE NOTED. NOTE: INDIVIDUAL CONDUCTORS ARE ACCEPTABLE, BUT MUST BE BID AS MULTIPLE CONDUCTOR CABLE. ALUMINUM CONDUCTORS ARE NOT ACCEPTABLE.

ELECTRICAL SYMBOLS

-  ELECTRICAL JUNCTION BOX, CONCRETE GROUND MOUNTED
-  PROPOSED SERVICE POINT – 480/240, 1 PHASE, 3 WIRE. CONTRACTOR TO VERIFY WITH GEORGIA POWER IN FIELD.
-  PULL BOX
-  650 VOLT – 2 POLE LIGHTNING ARRESTER
-  GROUND ROD – TO BE INSTALLED AT EACH GROUND MOUNTED LIGHTING STANDARD LOCATION
-  CONDUIT, NONMETALLIC, 2" TP 2 (SCHEDULE 40 PVC) FOR LIGHTING
-  CONDUIT, RIGID GALVANIZED, SIZE AS INDICATED
-  150 WATT HPS WALL MOUNTED TYPE A
-  POLE AND SINGLE LIGHTING FIXTURE, 250W HPS TYPE B

ELECTRICAL ABBREVIATIONS

- AVG AVERAGE
- EJB ELECTRICAL JUNCTION BOX
- FC FOOTCANDLE
- GAPCO GEORGIA POWER COMPANY
- GDOT GEORGIA DEPARTMENT OF TRANSPORTATION
- HPS HIGH PRESSURE SODIUM
- MS MAIN SERVICE
- PB PULL BOX
- RS RIGID STEEL

LIGHTING FIXTURE SCHEDULE

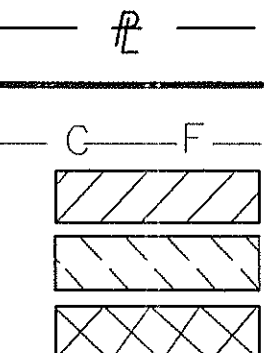
FIXTURE TYPE	DESCRIPTION	VOLTAGE	MOUNTING	LAMPS	REMARKS
A	U.L. WET LABEL WALLPACK, GRAY HOUSING, TOP-HINGE DOOR GLASS, INTEGRAL BALLAST, 3/4" CONDUIT ENTRY, STIPPLED FLAT GLASS.	480	WALL	150 WATT HPS	BRIDGE UNDERPASS
B	CUT-OFF TYPE ROADWAY LUMINAIRE ON 25' ALUMINUM POLE, TYPE II DISTRIBUTION, GRAY COLOR, FLAT GLASS LENS.	480	POLE TOP	250 WATT HPS	INTERSTATE RAMPS

SUMMARY OF QUANTITIES

DESCRIPTION	UNIT	QUANTITY
CLASS A CONCRETE	YD3	4
BAR REINFORCEMENT STEEL	LB	800
LIGHTING STD, 25 FT MH, POST TOP	EA	53
LUMINAIRE, TP 3, 250 W, HP SODIUM (TYPE B)	EA	53
LUMINAIRE, 150 W, HP SODIUM (TYPE A)	EA	8
CABLE, TP THW, AWG NO 6	LF	30000
CONDUIT, RIGID 1 1/2 IN	LF	100
CONDUIT, NONMETL, TP 2, 2 IN	LF	8000
SERVICE PICK UP POINT A	LS	1
SERVICE PICK UP POINT B	LS	1
ELECTRICAL JUNCTION BOX	EA	8
ELECTRICAL JUNCTION BOX, CONC GROUND MOUNTED	EA	5

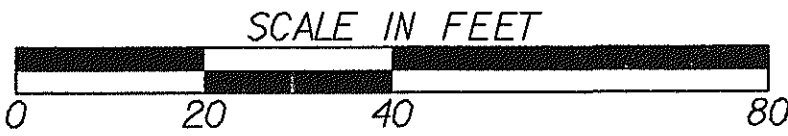
COSTING PLANS  
FOR DESIGN-BUILD

PROPERTY LINE  
REQUIRED R/W LINE  
CONSTRUCTION LIMITS  
EASEMENT FOR CONSTR  
& MAINTENANCE OF SLOPES  
EASEMENT FOR CONSTR OF SLOPES  
EASEMENT FOR CONSTR OF DRIVES



BEGIN LIMIT OF ACCESS.....BLA  
END LIMIT OF ACCESS.....ELA  
LIMIT OF ACCESS  
R/W AND LIMIT OF ACCESS  
EXISTING R/W LINE  
OBLITERATE & REMOVE PAVEMENT  
& GRADE TO DRAIN

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REVISION DATES

STATE OF GEORGIA  
DEPARTMENT OF TRANSPORTATION  
OFFICE: URBAN DESIGN  
**LIGHTING PLANS**  
PROJECT: SR400/1-85 CONNECTOR RAMPS  
COUNTY: FULTON & DEKALB

DRAWING No.  
25-00